REMARKS

The Office Action dated July 24, 2008 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 3, 9, 13-15, 17 and 20-22 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 10 and 16 have been cancelled without prejudice or disclaimer. No new matter has been added.

The Office Action indicated that claim 3 has been allowed. Applicant wishes to thank the Examiner for the allowance of this claim. Claim 3 has been amended into independent form to include all of the claim recitations of claim 1, and is therefore in condition for allowance. However, claims 1, 2 and 4-9, 11-15 and 17-22 are respectfully submitted for reconsideration.

Initially, Applicant wishes to thank the Examiner for the courtesies extended during the in-person interview conducted on October 17, 2008. During the course of the interview various features of the claims and specification were discussed. The disclosures of Baum and Donaldson were also discussed along with the rejections of the claims. Applicants have amended independent claims 1, 9, 13-15, 17 and 20-22 to recite features that were not previously recited in the claims. Accordingly, Applicants submit that all of the pending claims 1-9, 11-15 and 17-22 are in condition for allowance.

Claims 1, 2 and 4-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Baum (U.S. Patent Publication No. 2004/0071164) in view of Donaldson (U.S.

Patent No. 6,321,267). The Office Action took the position that Baum discloses all of the elements of the claims, with the exception of returning the held address to an end of at least one queue. The Office Action then cited Donaldson as allegedly curing this deficiency in Baum. This rejection is respectfully traversed for at least the following reasons.

Claim 1, upon which claim 2-8 are dependent, recites an apparatus that includes an address management entity comprising at least one queue configured to hold released addresses. The address management entity is configured to detect that a packet has been addressed to a released address held in the at least one queue, and return the held address to which the packet has been addressed to an end of the at least one queue. The size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses.

Claim 9, upon which claims 11 and 12 are dependent, recites an apparatus that includes an address management entity configured to receive a packet addressed to an unused address. The address management entity is also configured to send an error notification to a network node configured to manage addresses, the error notification indicating the unused address. The error notification causes a return of a released address held in a queue and corresponding to the unused address to an end of the queue, the queue holding released addresses. The size of the queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses.

Claim 13 recites a system that includes a first network node configured to manage addresses. The first network node comprises at least one queue configured to hold released addresses. The first network node is configured to detect that a packet has been addressed to a released address held in the at least one queue, and return the held address to which the packet has been addressed to an end of the at least one queue. The size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses. The system also includes a second network node configured to forward IP data packets, receive a packet addressed to an unused address, and send an error notification to the first network node, the error notification indicating the unused address.

Claim 14 recites a method that includes detecting that a packet has been addressed to a released address held in a queue holding released addresses, and returning the held address, to which the packet has been addressed, to an end of the queue. The size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses.

Claim 15 recites a method that includes receiving a packet addressed to an unused address, and sending an error notification to a network node configured to manage addresses. The error notification indicates the unused address. The sending the error notification further includes causing a return of a released address held in a queue and corresponding to the unused address to an end of the queue, the queue holding released

addresses. The size of the queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses.

Claim 17, upon which claims 18 and 19 are dependent, recites a computer-readable program distribution medium encoding a computer program of instructions being configured to control a processor to perform certain operations. The processor may perform detecting that a packet has been addressed to a released address held in a queue holding released addresses, and returning the held address, to which the packet has been addressed, to an end of the queue. The size of the queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses.

Claim 20 recites an apparatus that includes holding means for holding released addresses, and detecting means for detecting that a packet has been addressed to a released address held in the at least one holding means. The apparatus also includes returning means for returning the held address to which the packet has been addressed to an end of the at least one holding means. The size of the at least one holding means is variable and depends on stack implementations of correspondent nodes of previous users of released addresses.

Claim 21 recites an apparatus that includes receiving means for receiving a packet addressed to an unused address, and sending means for sending an error notification to a network node configured to manage addresses. The error notification indicates the unused address. The error notification causes a return of a released address held in a queue and corresponding to the unused address to an end of the queue. The queue holds

released addresses, and the size of the queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses

Claim 22 recites a system that includes managing means for managing addresses, and holding means for holding released addresses. The system also includes detecting means for detecting that a packet has been addressed to a released address held in the holding means. The system also includes returning means for returning the held address to which the packet has been addressed to an end of the at least one holding means. The size of the at least one holding means is variable and depends on stack implementations of correspondent nodes of previous users of released addresses. The system further includes receiving means for receiving a packet addressed to an unused address. The system further includes sending means for sending an error notification to the managing means, the error notification indicating the unused address.

As will be discussed below, the combination of Baum and Donaldson fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the features discussed above. The rejection is respectfully traversed for at least the following reasons.

Baum discloses detecting attempts to obtain IP addresses by using a fictitious MAC address in a data portion of an IP address request message. When a device connected to a LAN requires an IP address for access to an IP network, the device broadcasts an IP address assignment request message. The request is detected by an edge router on the LAN which responds by acting as a proxy to the requesting device and

which initiates a dynamic host configuration protocol (DHCP) session with a DHCP server. In response to an IP address assignment request, the DHCP server assigns the requesting device an available IP address from a pool 1009 illustrated in Fig. 10. In addition, the server removes the address from the pool 1009 and creates a new entry 1016 in an IP address lease information table 1014 (see paragraphs [0101] and [0102] of Baum).

Baum does not disclose "wherein the size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses", as recited, in part, in independent claim 1 and similarly in independent claims 9, 13-15, 17 and 20-22. Baum does not disclose any type of "queue" at all. The pool of available IP addresses (see 1009 of FIG. 10) of Baum is described as "a list of unused IP addresses which the DHCP server 520 is authorized to lease to requesting devices" (see paragraph [0100] of Baum). There are no specific examples disclosed in Baum regarding the characteristics of the pool 1009. At best, the pool 1009 will receive information of new addresses when they become available, and, conversely will let go of addresses as they are assigned by the DHCP server 520. The pool 1009 is not comparable to a queue having a variable size that depends on stack implementations of correspondent nodes of previous users of released addresses.

In addition to the above noted deficiencies of Baum with respect to the claims, Donaldson fails to cure those deficiencies of Baum, as the teachings of Donaldson also fail to teach or suggest "wherein the size of the at least one queue is variable and depends

on stack implementations of correspondent nodes of previous users of released addresses", as recited, in part, in independent claim 1 and similarly in independent claims 9, 13-15, 17 and 20-22.

Donaldson is directed to filtering junk email. The method disclosed in Donaldson also provides the ability to automatically append IP addresses detected by certain sensor points back into an IP filtering list. Once the IP addresses have been detected, those hosts whose IP addresses have recently been detected can be subsequently blocked by a simple IP lookup mechanism. This provides a quick way to reject subsequent connections from IP addresses that have already been rejected by an active filtering operation. Baum does not seek to block or filter devices based on their IP addresses and has no relation to the teachings of Donaldson.

Donaldson discloses performing blacklisting of IP addresses. Nowhere in Donaldson, and in particular not at columns 6, 8, 18 and 24, is it disclosed that the size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users of released addresses. Donaldson only discloses that a message may cause a sender's IP address to be added to the end of the list in which case the IP address is not already on the list (see column 18, lines 12-29 of Donaldson). The teachings of Donaldson do not disclose that the size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users.

As for the discussion of queues in Donaldson, message text of a processed message is placed in a queue 1042 of outgoing messages (see column 2, lines 18-22 of

Donaldson). During an SMTP session between sending and receiving message transfer agents (MTAs), messages are transferred from a message queue of the sending device 1042 to a message queue of a receiving device 1046. Once the SMTP message transfer session is complete the message is removed from the sending queue 1042 of the sending host, and the receiving host will notify the user agent to read the message in mail queue 1046. The message queues 1042 and 1046 of Donaldson are not comparable to the cooling queue of the preset application. Donaldson does not disclose any queue sizing criteria that discloses that the size of the at least one queue is variable and depends on stack implementations of correspondent nodes of previous users .

Therefore, Applicants submit that Baum and Donaldson, individually or in combination, fail to teach all of the subject matter of independent claims 1, 9, 13-15, 17 and 20-22. By virtue of dependency, Baum and Donaldson also fails to teach the subject matter of dependent claims 2-8, 11, 12, 18 and 19. Withdrawal of the rejection of claims 1, 2, 4-9, 11-15 and 17-22 is kindly requested.

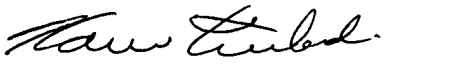
For at least the reasons discussed above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-9, 11-15 and 17-22 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicant's undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Kamran Emdadi
Registration No. 58,823

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Vienna, Virginia 22182-6212
Telephone: 703-720-7800
Fax: 703-720-7802

KE:sjm